

AMENDMENTS TO THE SPECIFICATION

Please replace Paragraph [0021] with the following paragraph rewritten in amendment format:

In accordance with the preferred embodiment, data embedder 24 is operable to enhance the selected indices 22 prior to adding the watermark. To do so, the selected indices 22 are sorted in either of an ascending or descending order. Then, a difference is computed for each pair of consecutive quantization indices, and the sign is alternated for every other quantization index. Thus, an enhanced sequence $y = y_1, y_2, \dots, y_{N/2}$, of quantization indices 23 is ~~formed~~derived in accordance with $y_j = (-1)^j (x_{s_{2j-1}} - x_{s_{2j}})$, $1 \leq j \leq N/2$ (assuming N is even), where x_s refers to sorted host transform parameters. Further implementation details for the enhanced spread spectrum watermarking technique are discussed in Cheng et al., U.S. Pat. No. 7,076,659, entitled US Patent Application "Enhanced Method For Digital Data Hiding" and filed on February 25, 2002 by the assignee of the present invention, ~~which~~ The aforementioned issued United States Patent is herein incorporated by reference in its entirety for any purpose. It is envisioned that enhancement of the indices may alternatively be performed by the index selector 20, and that other components may be employed to accomplish the enhancement.

Please replace Paragraph [0027] with the following paragraph rewritten in amendment format:

Referring to Figure 3, a decoding apparatus 62 according to the present invention has a partial decoder 64 receptive of a compressed data stream 66 having data embedded in quantization indices according to the present invention. This partial decoder 64 is operable to partially decode the compressed data stream 66 to obtain a data-embedded partially decompressed data stream 68 having data-embedded quantization indices. Decoding apparatus 62 also has a correlation detector 70 receptive of a decoding key 72 and the data-embedded partially decompressed data stream 68. This correlation detector 70 is operable to extract the data from the data-embedded quantization indices, thereby obtaining the original data 74 that was embedded in the compressed data stream 66. An enhanced spread spectrum decoding technique is preferably used as a complement to the enhanced spread spectrum encoding technique, and the watermark extraction proceeds according to the following:

$w' = 1$ if $\sum_n x'(n)k'(n) > E[\sum_n x(n)k(n)]$ and $w' = 0$ otherwise, where w' refers to the extracted watermark, x refers to host transform parameters, k refers to a watermark key, and E denotes an expected value.